

COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY (CLEAN I)

Northern and Central California, Nevada, and Utah

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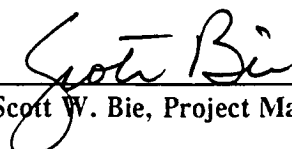
DEPARTMENT OF THE NAVY
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San Bruno, California

PRELIMINARY
REMOVAL ACTION IMPLEMENTATION REPORT
SITE 15
NAVAL AIR STATION
ALAMEDA, CALIFORNIA

December 1995

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1.0 INTRODUCTION

This document presents the preliminary results of the non-time-critical removal action for polychlorinated biphenyls- (PCBs) and lead-impacted soil conducted at Site 15 at Naval Air Station (NAS) Alameda. This document briefly summarizes site conditions, removal action activities, and the effectiveness of the removal action. The discussion of the effectiveness of the removal action is based on confirmation sample analytical data that are not yet validated, so the discussion of the effectiveness of the removal action and the recommendations offered should be considered preliminary. Data validation will be completed in February 1996, so the preliminary discussion of removal action effectiveness and recommendations provided herein may be verified at this time. The final removal action implementation report will be generated following treatment of the soil excavated from Site 15.

2.0 SITE DESCRIPTION AND REMOVAL ACTION BACKGROUND

This section briefly describes the physical characteristics of Site 15 and provides a summary of the removal action background.

2.1 Location

Site 15 is located in the northern portion of NAS Alameda, north of Runway 7-25 and Perimeter Road, and approximately 250 feet south of the Oakland Inner Harbor (Figure 1). The nearest residential area is located approximately 1.5 miles east of Site 15.

2.2 History of Operations and Pollution-Generating Activities

Prior to 1974, transformers were stored at Site 15. An estimated 200 to 400 gallons of oil containing PCBs from transformers may have been stored at any one time. Personnel recalled occasional leaks of the PCB-containing oil. PCB-containing oil was drained from the transformers on a regular basis and sprayed on the grounds around the nearby buildings for weed control before regulations were promulgated prohibiting this use.

2.3 Nature and Extent of Contamination

Prior to the removal action, Site 15 contained soil with elevated polychlorinated biphenyl (PCB) concentrations and lead concentrations exceeding the total threshold limit concentration (TTL) toxicity criteria for a hazardous waste according to California Code of Regulations Title 22, Section 66261.24. PCBs and lead were detected in most surface soil and soil boring samples from depths ranging from 0.5 feet below ground surface (bgs) to 2 feet bgs (Figures 2 and 3). At depths greater than or equal to 2 feet bgs, PCBs were not detected and lead was detected at concentrations less than 10 milligrams per kilogram (mg/kg). The PCB Aroclor-1260 was detected in 58 of 61 surface soil samples collected during the remedial investigation in concentrations that ranged from 0.140 mg/kg to 19 mg/kg (PRC and JMM 1992). Lead concentrations detected in surface soil samples ranged from 5 mg/kg to 1,350 mg/kg. No PCBs/pesticides, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), or lead have been detected in the groundwater.

3.0 ORGANIZATION OF REMOVAL ACTION

This section describes the applicable or relevant and appropriate requirements (ARARs), the objectives of the removal action, and the selected remedial technology.

3.1 Applicable or Relevant and Appropriate Requirements

At technical review meetings held in January 1994, the Navy, California Environmental Protection Agency's Department of Toxic Substance Control (DTSC), the Regional Water Quality Control Board (RWQCB), and the U.S. Environmental Protection Agency (EPA) concurred on interim cleanup levels for the removal of PCB- and lead-impacted soil at Site 15. The interim cleanup level established for PCB is 1 mg/kg; the interim cleanup level established for lead is 130 mg/kg (PRC and JMM 1994). These interim cleanup levels are protective of human health, and the Navy considers the protection of human health a priority.

3.2 Objectives of Removal Action

The removal action objectives are to reduce the volume, toxicity, and mobility of contaminants by excavating impacted soil, transporting excavated soil to a temporary storage and treatment area (TSTA)

for later treatment, and backfilling the excavated area with clean fill soils. The TSTA is a bermed containment unit approximately 17,000 square feet in an area located near Site 15 (Figure 1) (EFA West 1995). The TSTA is lined and covered with impermeable liner material and is equipped with a sump and temporary tank for collection of water runoff. The removal action is consistent with protecting water quality, because it will result in removal of a potential source of groundwater and surface water contamination.

3.3 Selected Remedial Technology

The remedial action alternative selected consisted of the following: excavating soil, conducting confirmatory sampling and analysis, implementing on-site treatment using a soil washing process, and backfilling the site with the treated soil. However, due to technical difficulties with the soil washing equipment, the soil washing system was not fully implemented. Therefore, the soil washing system was demobilized, a TSTA was constructed, the excavated soil was transported to the TSTA for later treatment, and the excavation was backfilled with clean fill material.

4.0 REMOVAL ACTION APPROACH

4.1 Removal Action Chronology

The following summarizes the removal action chronology.

1985. Site Investigation. Surface soil was sampled during the verification step of the Navy Assessment and Control of Installation Pollutants (NACIP) (Wahler 1985).

1992. Site Investigation. Remedial investigation (RI) was conducted at Site 15 including geophysics, surface soil sampling, drilling soil borings, subsurface soil sampling, installation and sampling of monitoring wells, in situ permeability testing, and groundwater level measuring (PRC and JMM 1992).

Winter 1993. Follow-on Site Characterization. The Navy conducted surface soil sampling to delineate the extent of PCBs and lead in the surface soil at Site 15 (PRC and JMM 1994).

January 1994. ARARs. The Navy and regulatory agencies agreed on interim cleanup levels for PCBs and lead in Site 15 soils.

Spring 1995. Site Establishment. The exclusion zone was established using barricades, caution tape, and signs to restrict access.

June 6 - December 11, 1995. Soil Excavation and Screening and Confirmation Sampling. Impacted soils were excavated, screening and confirmation samples collected, and confirmation samples analyzed.

June 12 - September 1995. Setup, Demonstration, and Demobilization of Treatment System. The soil washing system was set up, was not fully implemented, and the soil washing system was demobilized.

November 1995. Construction of TSTA. The TSTA was constructed in an area approximately 1,000 feet west of Site 15 (Figure 1).

November - December 11, 1995. Soil Transportation and Storage at TSTA.

Late November - December 1995. Site Restoration. The excavated area was backfilled to grade using clean fill material.

4.2 Removal Activities Performed

The Navy excavated the PCB- and lead-impacted soil beginning June 6, 1995, and ending December 11, 1995. The excavated soil was stockpiled within the Site 15 boundaries on polyethylene sheeting, and the stockpiles were covered with polyethylene sheeting.

Subsequent to soil excavation, the Navy performed soil verification sampling on an approximately 30-foot grid using screening-level and confirmation sampling. From June until early August 1995, after each stage of excavation, excavation floor samples were collected and field screened for PCBs using Millipore® field test kits. Beginning August 22, 1995, and ending December 4, 1995, confirmation samples were collected and submitted to a fixed base laboratory for PCB, lead, SVOCs, and total metals analyses (Table 1 and Figure 4). In an iterative approach, if the field screening or confirmation sample data indicated PCBs or lead in the soil greater than the interim cleanup levels, the impacted soil was excavated. Subsequent to each additional excavation, additional field screening and/or confirmation samples were collected to verify that all the impacted soil had been removed. This iterative process of field screening or confirmation sampling and subsequent excavation was repeated until all field screened or confirmation samples indicated PCBs and lead in the remaining site soils contained concentrations below the interim cleanup levels.

In November 1995, a TSTA was constructed approximately 1,000 feet west of Site 15, and the excavated soils were transported to the TSTA in November and early December 1995 (Figure 1). Currently, the excavated soil is stored at the TSTA awaiting treatment. In late November and early December, the excavation was backfilled using clean backfill material.

5.0 EFFECTIVENESS OF THE REMOVAL ACTION

Table 1 presents the analytical methods requested and the unvalidated analytical results for PCBs and lead for all confirmation samples collected at Site 15. The confirmation sample locations and the excavation boundary is illustrated in Figure 4. A complete suite of analyses for confirmation samples collected on an approximately 30-foot grid within the excavation limits indicate concentrations of PCBs and lead below the interim cleanup levels. In Table 1, the PCB and lead values in bold type are those values that exceeded the Site 15 interim cleanup levels. As noted in the Table 1 comments, the area around each of the samples that exceeded interim cleanup levels was excavated and a subsequent confirmation sample collected. All soil identified to contain PCBs and lead in excess of the interim cleanup levels during the site investigations has been excavated and stored at the TSTA for future treatment.

This removal action has mitigated the immediate threat to humans and the environment posed by PCB- and lead-impacted soil at Site 15. This removal action has also reduced the potential for PCBs and lead to impact groundwater quality.

6.0 RECOMMENDATIONS

Based on the unvalidated removal action confirmation sample analytical data and the previous site investigations at Site 15, it is recommended that no further action be taken to remove PCB- and lead-impacted soils from Site 15 prior to the completion of the risk assessment being conducted as part of the remedial investigation and feasibility study (RI/FS).

The confirmation sample data presented in this document have not been validated to date. During the validation process, some analytical values may be changed or qualified based on various factors such as laboratory contamination, equipment instabilities, and sample dilutions. Although the confirmation sample data are not validated, the data are not anticipated to change during the validation process to a degree that it modifies the recommendations offered herein; however, the recommendations offered herein should be considered preliminary.

The RI/FS will further characterize the nature and extent of PCBs and lead contamination at the site. Further actions may be needed to mitigate risks from soils with PCBs and lead concentrations below the

interim action levels at Site 15 if a risk assessment indicates this is necessary.

REFERENCES

Department of the Navy, Engineering Field Activity West, Naval Facilities Engineering Command (EFA West). 1995. Administrative Memorandum Changes to Removal Action at Site 15 Naval Air Station Alameda. October 31.

PRC Environmental Management, Inc. (PRC) and James M. Montgomery, Consulting Engineers, Inc. (JMM). 1992. Data Summary Report RI/FS Phases 2B and 3, Volume 1 of 2, Naval Air Station Alameda California (Final). Prepared for Navy-EFA West. October 27.

PRC Environmental Management, Inc. (PRC) and James M. Montgomery, Consulting Engineers, Inc. (JMM). 1994. Site 15 Removal Action Engineering Evaluation/Cost Analysis Report (Final). October 13.

Wahler Associates (Wahler). 1985. Draft Report, Verification Step, Confirmation Study. May.

FIGURES

PRELIMINARY REMOVAL ACTION IMPLEMENTATION REPORT

DATED 01 DECEMBER 1995

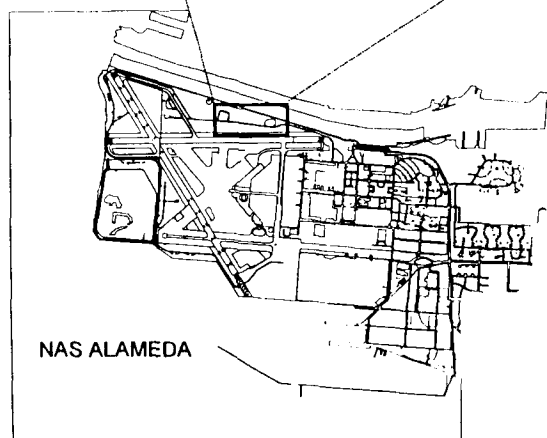
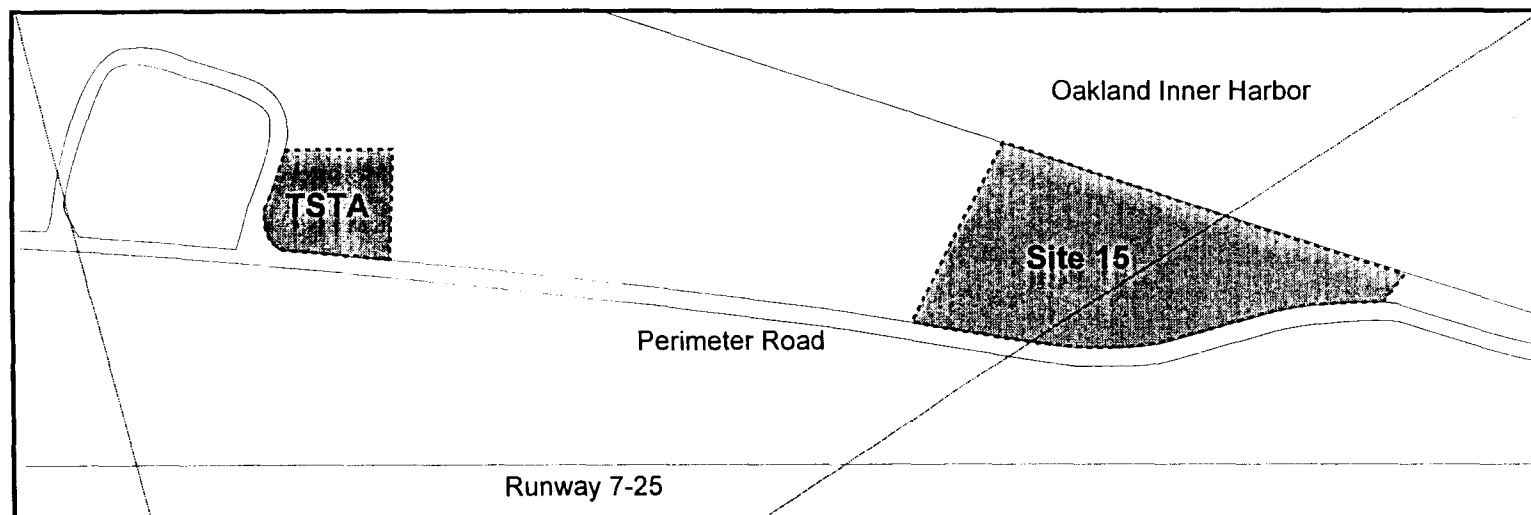
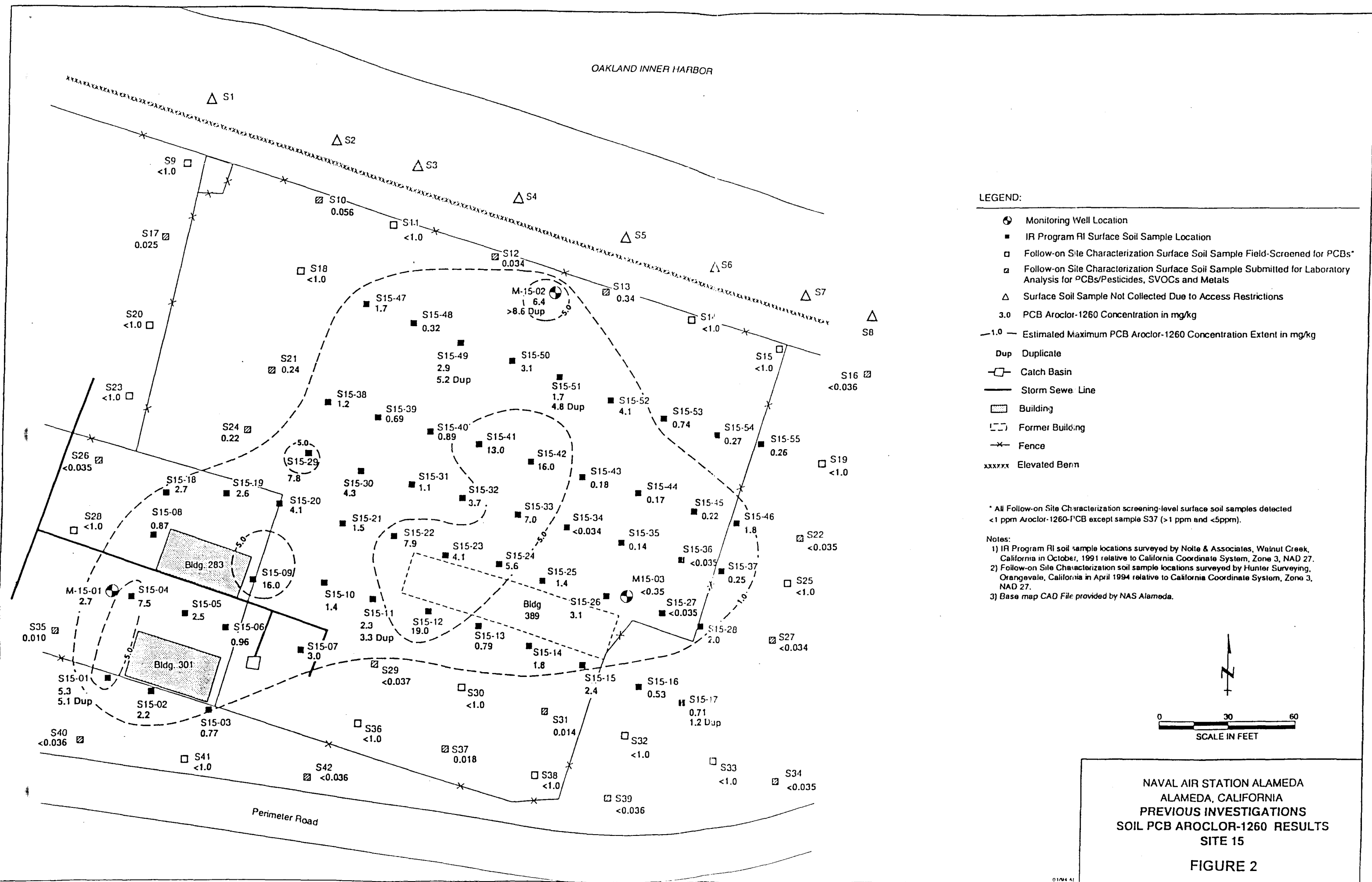
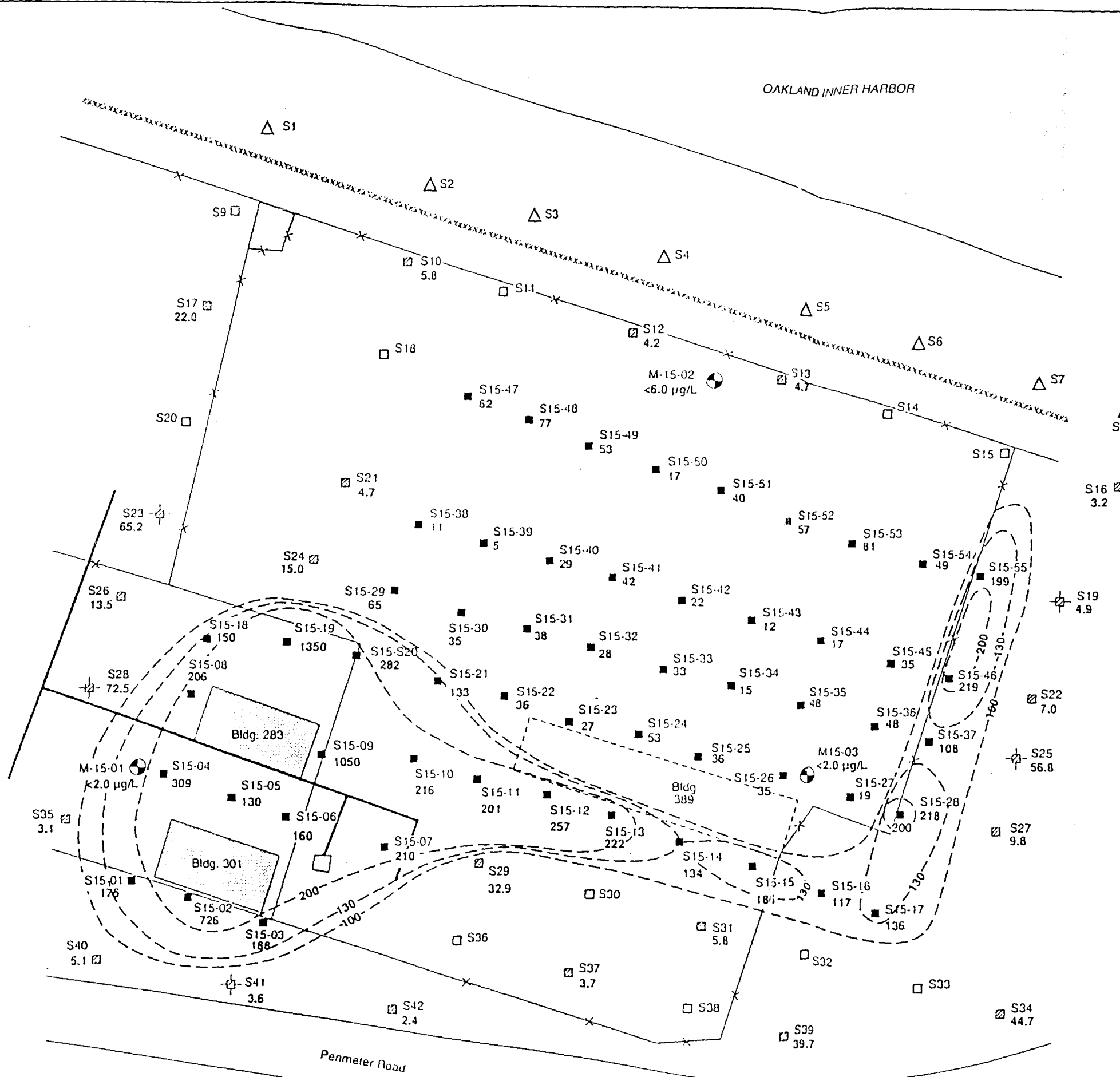


Figure 1: Location of Site 15 and the Temporary Storage and Treatment Area (TSTA).



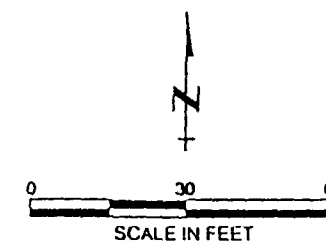


LEGEND:

- Monitoring Well Location
- IR Program RI Surface Soil Sample Location
- Follow-on Site Characterization Surface Soil Sample Location
- ▣ Follow-on Site Characterization Surface Soil Sample Submitted for Laboratory Analysis for Metals (Including Lead)
- ⊕ Additional Follow-on Site Characterization Sample Submitted for Laboratory Analysis for Lead Only
- △ Surface Soil Samples Not Collected Due to Access Restrictions
- 150 Lead Concentration* (mg/kg) (Surface)
* at 2.0 ft. bgs, lead <10 mg/kg
- 100--- Estimated Maximum Lead Concentration Extent in mg/kg
- ▭ Catch Basin
- Storm Sewer Line
- ▤ Building
- ▤ Former Building
- X— Fence
- XXXXXX Elevated Berm

Notes:

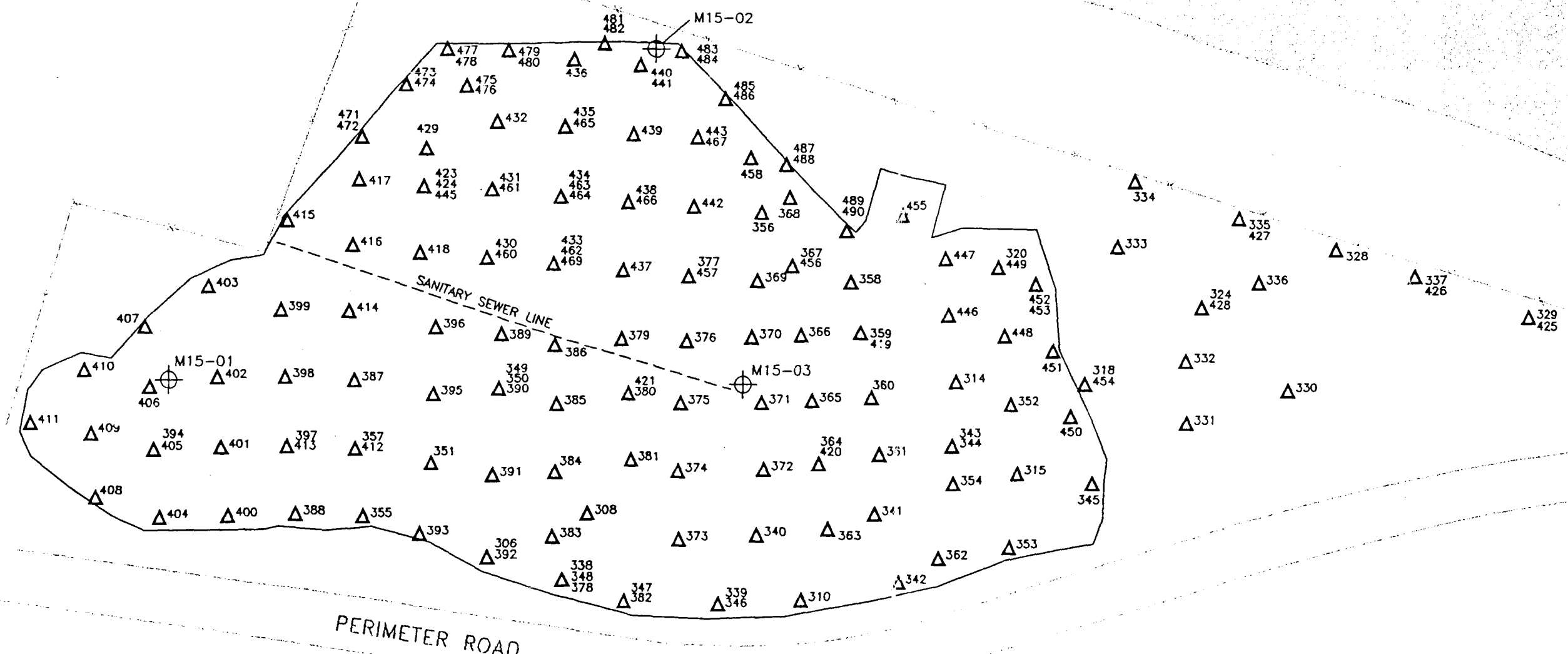
- 1) IR Program RI soil sample locations surveyed by Nolte & Associates, Walnut Creek, California in October, 1991 relative to California Coordinate System, Zone 3, NAD 27.
- 2) Follow-on Site Characterization soil sample locations surveyed by Hunter Surveying, Orangevale, California in April 1994 relative to California Coordinate System, Zone 3, NAD 27.
- 3) Base map CAD File provided by NAS Alameda.






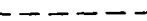
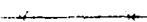
NAVAL AIR STATION ALAMEDA
ALAMEDA, CALIFORNIA
PREVIOUS INVESTIGATIONS
SOIL TOTAL LEAD RESULTS
SITE 15

FIGURE 3

OAKLAND INNER HARBOR



LEGEND

-  SOIL SAMPLE LOCATION
-  MONITORING WELL LOCATION
-  EXCAVATION BOUNDARY
-  SEWER
-  FENCE

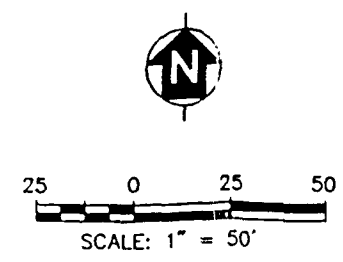


FIGURE 4
 NAS ALAMEDA
 ALAMEDA, CALIFORNIA
 SITE 15 EXCAVATION
 CONFIRMATION SOIL SAMPLE LOCATIONS

TABLES

PRELIMINARY REMOVAL ACTION IMPLEMENTATION REPORT

DATED 01 DECEMBER 1995

TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
306	258-S15 105	8/22/95	X	X				56.000	77.2	Per September 1, 1995 memo, PRC recommended further excavation to a depth of 1'. Resampled following excavation (i.e., sample 392).
308	258-S15 106	8/22/95	X	X				0.036	32.5	
310	258-S15 107	8/22/95	X	X				0.750	40.7	
314	258-S15 108	8/22/95	X	X				0.120	42.8	
315	258-S15 109	8/22/95	X	X				0.150	44.7	
318	258-S15 103	8/22/95	X	X				1.100	34.1	Per September 1, 1995 memo, PRC recommended further excavation to a depth of 1'. Resampled on November 17, 1995 (i.e., sample 454) following recommended excavation.
320	258-S15 104	8/22/95	X	X				1.200	28.9	Per September 1, 1995 memo, PRC recommended further excavation to a depth of 1'. Resampled on November 17, 1995 (i.e., sample 449) following recommended excavation.
324	258-S15 102	8/22/95	X	X				0.890	149.0	Resampled on October 12, 1995 (i.e., sample 428) following recommended excavation. The resampling effort was stated in the October 19, 1995 memo.
328	258-S15 101	8/22/95	X	X				0.110	57.5	
329	258-S15 100	8/22/95	X	X				0.220	220.0	Resampled on October 12, 1995 (i.e., sample 425) following recommended excavation. The resampling effort was stated in the October 19, 1995 memo.
330	258-S15 110	9/8/95	X	X				0.180	29.8	Sampled at about 1" bgs because of asphalt and concrete
331	258-S15 111	9/8/95	X	X				0.290	98.5	Sampled at about 1" bgs because of asphalt and concrete
332	258-S15 112	9/8/95	X	X				0.440	38.0	Sampled at about 1" bgs because of asphalt and concrete
333	258-S15 113	9/8/95	X	X				0.067	6.9	
334	258-S15 114	9/8/95	X	X				0.250	40.0	Soil was excavated for Biogenesis to use in clean soil tests of their system Location backfilled by the RAC.
335	258-S15 115	9/8/95	X	X				0.560	169.0	Resampled on October 12, 1995 (i.e., sample 427). The resampling effort was stated in the October 19, 1995 memo.
336	258-S15 116	9/8/95	X	X				0.010	4.8	
337	258-S15 117	9/8/95	X	X				0.550	283.0	Resampled on October 12, 1995 (i.e., sample 426). The resampling effort was stated in the October 19, 1995 memo.
338	258-S15 118	9/8/95	X	X				310.000	59.8	Per October 19, 1995 memo, PRC recommended further excavation in this area. Resampled on November 8, 1995 following excavation (i.e., sample 348).
339	258-S15 119	9/8/95	X	X				3.000	16.9	Per October 19, 1995 memo, PRC recommended further excavation in this area. Resampled November 8, 1995 following excavation (i.e. sample 346).
340	258-S15 120	9/8/95	X	X				0.012	101.0	
341	258-S15 121	9/8/95	X	X				0.380	78.4	
342	258-S15 122	9/8/95	X	X				0.270	69.7	

All samples were analyzed by CLP unless otherwise noted.
All analytical data is unvalidated and should be considered preliminary.
Bold type values exceed Site 15 PRGs.

TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
343	258-S15 123	9/8/95	X	X				0.090	81.5	
344	258-S15 124	9/8/95	X	X				0.033	39.9	
345	258-S15 125	9/8/95	X	X				0.160	93.5	
352	258-S15 132	9/21/95	X			X		0.025		
353	258-S15 133	9/21/95	X			X		ND		
354	258-S15 134	9/21/95	X				X	ND	54.7	
356	258-S15 136	9/21/95	X			X	X	0.180	39.7	
358	258-S15 138	9/21/95	X					ND		
359	258-S15 139	9/21/95	X			X		ND		
360	258-S15 140	9/21/95	X	X				ND	34.3	
361	258-S15 141	9/21/95	X			X	X	ND	35.4	
362	258-S15 142	9/21/95	X			X	X	0.015	13.3	
363	258-S15 143	9/21/95	X			X		0.120		
364	258-S15 144	9/21/95	X					0.049		
365	258-S15 145	9/21/95	X			X		ND		
366	258-S15 146	9/21/95	X				X	ND	4.8	
367	258-S15 147	9/21/95	X			X		0.073		
368	258-S15 148	9/21/95	X				X	0.063	9.0	
369	258-S15 149	9/21/95	X					0.027		
370	258-S15 150	9/21/95	X			X		ND		
371	258-S15 151	9/21/95	X					ND		
372	258-S15 152	9/21/95	X			X	X	0.590	9.9	
373	258-S15 153	9/21/95	X			X	X	0.150	70.6	
374	258-S15 154	9/21/95	X					ND		
375	258-S15 155	9/21/95	X			X		0.085		
376	258-S15 156	9/21/95	X				X	0.140	19.5	
377	258-S15 157	9/21/95	X	X				0.510	28.7	
379	258-S15 159	9/21/95	X			X		ND		
380	258-S15 160	9/21/95	X	X				0.018	18.2	
381	258-S15 161	9/21/95	X			X	X	0.580	16.0	
382	258-S15 162	9/21/95	X			X		5.600		Per October 19, 1995 memo, PRC recommended further excavation in this area along with samples 338 and 339. Resampled location following excavation (i.e., sample 347).
383	258-S15 163	9/21/95	X			X		0.340		
384	258-S15 164	9/21/95	X	X				ND	1.6	
385	258-S15 165	9/21/95	X			X		0.390		
386	258-S15 166	9/21/95	X					0.140		
389	258-S15 169	9/21/95	X	X		X		0.850	16.3	

All samples were analyzed by CLP unless otherwise noted.
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Bold type values exceed Site 15 PRGs.

TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
390	258-S15 170	9/21/95	X				X	3.200	38.5	Per October 19, 1995 memo, PRC recommended further excavation in this area. Resampled after excavation (i.e., sample 349 and 350 (dup.))
391	258-S15 171	9/21/95	X			X		0.010		
392	258-S15 172	9/21/95	X			X	X	ND	6.7	Resample of excavation about location 306; excavation recommended per September 1, 1995 memo.
393	258-S15 173	9/21/95	X			X		0.130		
395	258-S15 175	9/21/95	X					0.086		
396	258-S15 176	9/21/95	X			X	X	0.074	8.2	
419	258-S15 199	9/21/95	X		X	X		0.041		349 Duplicate
420	258-S15 200	9/21/95	X		X			0.067		364 Duplicate
421	258-S15 201	9/21/95	X	X	X			0.020	10.5	380 Duplicate
422	258-S15 202	9/21/95	X		X	X	X	0.009	7.2	392 Duplicate
425	258-S15 205	10/12/95		X					7.4	Resample of location (field id) 329. Per October 30, 1995 memo, PRC recommended to close out this area.
426	258-S15 206	10/12/95		X					25.1	Resample of location (field id) 337. Per October 30, 1995 memo, PRC recommended to close out this area
427	258-S15 207	10/12/95		X					29.8	Resample of location (field id) 335. Per October 30, 1995 memo, PRC recommended to close out this area
428	258-S15 208	10/12/95		X					13.6	Resample of location (field id) 324. Per October 30, 1995 memo, PRC recommended to close out this area
346	258-S15 126	11/8/95	X	X	X			ND	1.8	Resample of location 339 after excavation was performed as requested per October 19, 1995 memo. 48 hour turnaround for Pb and PCB/PEST, used SW-846 method 8080 for Pest/PCB
347	258-S15 127	11/8/95	X	X	X			0.490	17.1	Resample of 382 after excavation was performed as requested per October 19, 1995 memo. 48 hour turnaround for Pb and PCB/PEST, used SW-846 method 8080 for Pest/PCB
348	258-S15 128	11/8/95	X	X	X			6.200	10.8	Resample of 338 after excavation was performed as requested per October 19, 1995 memo. 48 hour turnaround for Pb and Pest/PCB, used SW-846 method 8080 for Pest/PCB. Resampled on November 15, 1995 (i.e., sample 378) following recommended excavation.
349	258-S15 129	11/8/95	X	X	X			ND	2.9	Resample of 390 after excavation was performed as requested per October 19, 1995 memo. 48 hour turnaround for Pb and Pest/PCB, used SW-846 method 8080 for Pest/PCB
350	258-S15 130	11/8/95	X	X	X			ND	1.9	QA/QC (duplicate) for sample 349, 48 hour turnaround for Pb and Pest/PCB, used SW-846 method 8080 for Pest/PCB
351	258-S15 131	11/8/95	X	X	X			ND	1.6	48 hour turnaround for both Pb and Pest/PCB, used SW-846 method 8080 for Pest/PCB

All samples were analyzed by CLP unless otherwise noted.
All analytical data is unvalidated and should be considered preliminary.
Bold type values exceed Site 15 PRGs.

TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
355	258-S15 135	11/8/95	X	X	X			ND	2.2	48 hour turnaround for both Pb and Pest/PCB, used SW-846 method 8080 for Pest/PCB
357	258-S15 137	11/8/95	X	X	X			1.100	35.7	48 hour turnaround for both Pb and Pest/PCB, used SW-846 metho+L46d 8080 for Pest/PCB. Resampled on November 15, 1995 (i.e., sample 412) following recommended excavation.
387	258-S15 167	11/8/95	X	X	X			ND	10.4	48 hour turnaround for both Pb and Pest/PCB, used SW-846 method 8080 for Pest/PCB
388	258-S15 168	11/8/95	X	X	X			0.720	6.0	48 hour turnaround for both Pb and Pest/PCB, used SW-846 method 8080 for Pest/PCB
394	258-S15 174	11/8/95	X	X	X	X	X	0.060	4.2	QA/QC (duplicate) sample of 405, 48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOCs and metals will be analyzed by CLP with a 10 day verbal turnaround.
397	258-S15 177	11/8/95	X	X	X	X	X	1.200	28.7	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround. Resampled on November 15, 1995 (i.e., sample 413) following recommended excavation.
398	258-S15 178	11/8/95	X	X	X			ND	6.0	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB
399	258-S15 179	11/8/95	X	X	X	X	X	0.250	16.1	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
400	258-S15 180	11/8/95	X	X	X	X	X	0.180	11.8	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
401	258-S15 181	11/8/95	X	X	X			ND	3.1	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB
402	258-S15 182	11/8/95	X	X	X	X	X	0.160	15.7	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
403	258-S15 183	11/8/95	X	X	X	X	X	0.030	2.9	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
404	258-S15 184	11/8/95	X	X	X			ND	1.7	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB
405	258-S15 185	11/8/95	X	X	X	X	X	0.071	1.7	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround

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Bold type values exceed Site 15 PRGs.

TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
406	258-S15 186	11/8/95	X	X	X			0.027	2.5	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB
407	258-S15 187	11/8/95	X	X	X			ND	19.8	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB
408	258-S15 188	11/8/95	X	X	X			ND	1.0	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB
409	258-S15 189	11/8/95	X	X	X			0.027	1.5	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB
410	258-S15 190	11/8/95	X	X	X			ND	1.5	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB
411	258-S15 191	11/8/95	X	X	X	X	X	0.032	1.7	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
378	258-S15 158	11/15/95	X					ND		Resample of field id 348 after excavation was performed by IT on 11/14/95. Excavation was recommended by PRC per November 13, 1995 memo. Analyzed for PCBs only with a 48hr turnaround using SW846 method 8080.
412	258-S15 192	11/15/95	X					0.092		Resample of field id 357 after excavation was performed by the RAC on 11/14/95. Excavation was recommended by PRC per November 13, 1995 memo. Analyzed for PCBs only with a 48hr turnaround using SW846 method 8080.
413	258-S15 193	11/15/95	X					ND		Resample of field id 397 after excavation was performed by the RAC on 11/14/95. Excavation was recommended by PRC per November 13, 1995 memo. Analyzed for PCBs only with a 48hr turnaround using SW846 method 8080.
414	258-S15 194	11/15/95	X	X	X			0.022	24.8	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
415	258-S15 195	11/15/95	X	X	X			0.070	12.8	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
416	258-S15 196	11/15/95	X	X	X			0.360	35.8	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
417	258-S15 197	11/15/95	X	X	X	X	X	0.056	1.6	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
418	258-S15 198	11/15/95	X	X	X			0.084	9.4	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
423	258-S15 203	11/15/95	X	X	X			3.700	46.8	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB. Resampled on November 21, 1995 (i.e., sample 445) following recommended excavation.

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Bold type values exceed Site 15 PRGs.

TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
424	258-S15 204	11/15/95	X	X	X			1.800	39.5	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB. Duplicate of field id 423. Resampled on November 21, 1995 (i.e., sample 445) following recommended excavation.
429	258-S15 209	11/15/95	X	X	X	X	X	0.026	2.6	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
430	258-S15 210	11/16/95	X	X	X	X	X	1.100	39.5	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround. Resampled on November 27, 1995 (i.e., sample 460) following recommended excavation.
431	258-S15 211	11/16/95	X	X	X	X	X	1.300	18.7	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround. Resampled on November 27, 1995 (i.e., sample 461) following recommended excavation.
432	258-S15 212	11/16/95	X	X	X			0.310	4.9	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB.
433	258-S15 213	11/16/95	X	X	X			1.200	35.8	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB. Resampled on November 27, 1995 (i.e., sample 462) following recommended excavation.
434	258-S15 214	11/16/95	X	X	X			3.800	38.2	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB. Resampled on November 27, 1995 (i.e., sample 463/464) following recommended excavation.
435	258-S15 215	11/16/95	X	X	X	X	X	3.300	23.7	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround. Resampled on November 27, 1995 (i.e., sample 465) following recommended excavation.
436	258-S15 216	11/16/95	X	X	X			ND	7.8	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
437	258-S15 217	11/16/95	X	X	X			0.730	31.3	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
438	258-S15 218	11/16/95	X	X	X	X	X	1.200	22.0	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
439	258-S15 219	11/16/95	X	X	X			ND	16.6	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
440	258-S15 220	11/16/95	X	X	X	X	X	0.260	8.9	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround

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TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
441	258-S15 221	11/16/95	X	X	X	X	X	0.490	9.4	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround. Duplicate of sample 440.
442	258-S15 222	11/16/95	X	X	X			0.880	24.5	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
443	258-S15 223	11/16/95	X	X	X	X	X	2.400	32.6	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround. Resampled on November 27, 1995 (i.e., sample 467) following recommended excavation.
446	258-S15 226	11/17/95	X	X	X			ND	3.7	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
447	258-S15 227	11/17/95	X	X	X	X	X	0.110	10.9	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
448	258-S15 228	11/17/95	X	X	X	X	X	ND	6.2	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
449	258-S15 229	11/17/95	X	X	X			0.096	11.8	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB. Resample of location (field id) 320 following recommended excavation.
450	258-S15 230	11/17/95	X	X	X	X	X	ND	9.8	48 hour turnaround for Pb and Pest/PCB; SW-846 method 8080 for Pest/PCB; SVOC and metals will be analyzed by CLP with 10 day verbal turnaround
451	258-S15 231	11/17/95	X	X	X			ND	15.0	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
452	258-S15 232	11/17/95	X	X	X			ND	3.9	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
453	258-S15 233	11/17/95	X	X	X			ND	3.4	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB. Duplicate of sample 452.
454	258-S15 234	11/17/95	X	X	X			ND	7.2	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB. Resample of location (field id) 318 following recommended excavation.
456	258-S15 236	11/17/95	X	X	X			0.044	15.2	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
457	258-S15 237	11/17/95	X	X	X			0.380	39.8	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB
458	258-S15 238	11/17/95	X	X	X			ND	32.6	48 hour turnaround for Pb and Pest/PCBs; SW-846 method 8080 for Pest/PCB

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TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
445	258-S15 225	11/21/95	X					ND		Resample of 423/424 after excavation was performed as requested per November 20, 1995 memo. Analyzed for PCBs only with 48hr turnaround using SW-846 method 8080.
455	258-S15 235	11/21/95		X					3.6	48 hour turnaround for Pb
460	258-S15 240	11/27/95	X					ND		Resample of 430 after excavation was performed as requested per November 21, 1995 memo. Excavation was performed by the RAC on 11/22/95. Analyzed for PCBs only with 48hr turnaround using SW-846 method 8080.
461	258-S15 241	11/27/95	X					0.920		Resample of 431 after excavation was performed as requested per November 21, 1995 memo. Excavation was performed by the RAC on 11/22/95. Analyzed for PCBs only with 48hr turnaround using SW-846 method 8080.
462	258-S15 242	11/27/95	X					2.100		Resample of 433 following recommended excavation. Analyzed for PCBs only with 48hr turnaround using SW-846 method 8080. Resampled on December 4, 1995 (i.e., sample 469) following recommended excavation.
463	258-S15 243	11/27/95	X					0.029		Resample of 434 after excavation was performed as requested per November 21, 1995 memo. Excavation was performed by the RAC on 11/22/95. Analyzed for PCBs only with 48hr turnaround using SW-846 method 8080.
464	258-S15 244	11/27/95	X					0.018		Resample of 434 after excavation was performed as requested per November 21, 1995 memo. Excavation was performed by the RAC on 11/22/95. Analyzed for PCBs only with 48hr turnaround using SW-846 method 8080. Duplicate of sample 463.
465	258-S15 245	11/27/95	X					ND		Resample of 435 after excavation was performed as requested per November 21, 1995 memo. Excavation was performed by the RAC on 11/22/95. Analyzed for PCBs only with 48hr turnaround using SW-846 method 8080.
466	258-S15 246	11/27/95	X					ND		Resample of 438 after excavation was performed as requested per November 21, 1995 memo. Excavation was performed by the RAC on 11/22/95. Analyzed for PCBs only with 48hr turnaround using SW-846 method 8080.
467	258-S15 247	11/27/95	X					0.130		Resample of 443 after excavation was performed as requested per November 21, 1995 memo. Excavation was performed by the RAC on 11/22/95. Analyzed for PCBs only with 48hr turnaround using SW-846 method 8080.

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TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
469	258-S15 249	12/4/95	X		X			0.047		Resample of 462 after excavation was performed as requested per December 1, 1995 memo. Excavation was performed by the RAC on 12/1/95. Sample was analyzed for Pest/PCB with 48hr turnaround using SW 846 method 8080.
471	258-S15 251	12/4/95	X		X			1.290		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
472	258-S15 252	12/4/95	X		X			0.158		Sample was taken at 1'bgs from additional excavation floor, at location (field id) 471 as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080. Confirms PCB-impacted soil at location (field id) 471 is removed following excavation recommended in December 8, 1995 memo.
473	258-S15 253	12/4/95	X		X			ND		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080. Sample was taken at 1'bgs from additional excavation floor, at location (field id) 473, as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
474	258-S15 254	12/4/95	X		X			ND		
475	258-S15 255	12/4/95	X		X			0.014		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
476	258-S15 256	12/4/95	X		X			ND		Sample was taken at 1'bgs from additional excavation floor, at location (field id) 475, as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
477	258-S15 257	12/4/95	X		X			0.123		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
478	258-S15 258	12/4/95	X		X			0.075		Sample was taken at 1'bgs from additional excavation floor, at location (field id) 477, as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
479	258-S15 259	12/4/95	X		X			ND		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
480	258-S15 260	12/4/95	X		X			ND		Sample was taken at 1'bgs from additional excavation floor, at location (field id) 479, as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.

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TABLE 1
UNVALIDATED CONFIRMATION SAMPLE ANALYTICAL RESULTS
NAS ALAMEDA
SITE 15
CTO 0258

Field ID	Laboratory ID	Sample Date	Analyses Requested					PCB CLP Results (mg/kg)	Pb CLP Results (mg/kg)	Comments
			PCB	Pb	Pest	SVOC	Metals	ND = Nondetect		
481	258-S15 261	12/4/95	X		X			0.415		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
482	258-S15 262	12/4/95	X		X			0.142		Sample was taken at 1'bgs from additional excavation floor, at location (field id) 481, as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
483	258-S15 263	12/4/95	X		X			0.148		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
484	258-S15 264	12/4/95	X		X			0.040		Sample was taken at 1'bgs from additional excavation floor, at location (field id) 483, as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
485	258-S15 265	12/4/95	X		X			0.018		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
486	258-S15 266	12/4/95	X		X			0.008		Sample was taken at 1'bgs from additional excavation floor, at location (field id) 485, as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
487	258-S15 267	12/4/95	X		X			0.408		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
488	258-S15 268	12/4/95	X		X			0.058		Sample was taken at 1'bgs from additional excavation floor, at location (field id) 487, as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
489	258-S15 269	12/4/95	X		X			ND		Surface sample from additional excavation as requested per November 30, 1995 CQC meeting. Excavation was performed by the RAC on 12/1/95. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
490	258-S15 270	12/4/95	X		X			ND		Sample was taken at 1'bgs from additional excavation floor, at location (field id) 489, as requested per November 30, 1995 CQC meeting. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
491	258-S15 271	12/4/95	X		X			0.051		QA/QC (duplicate) sample of 479. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.
492	258-S15 272	12/4/95	X		X			0.016		QA/QC (duplicate) sample of 485. Analyzed for Pest/PCB with 48hr turnaround using SW-846 method 8080.

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